

HRM Resources

Location	DJ Basin	Slot	PC SOUTH 1S-66-2928-17NH
Field	WATTENBERG	Well	W PC SOUTH 1S-66-2928-17NH
Installation	PC 1S-66-2928 PAD	Wellbore	W PC SOUTH 1S-66-2928-17NH (PWB)

N
GRID

East (Feet) ->

-3200 -1600 0 1600 3200 4800 6400 8000 9600 11200
Scale 1 cm = 800 ft

Jan-24-2017
EMM-2015 [2000.0-2020.0] Dip: 66.34 deg Field: 52071.6 nT
Lat: N39 56 7.4760 Long: W104 48 15.5520 Elev: 9723.01 ft
Magnetic North is 8.36 deg East of True North
GRID North is 0.45 deg East of True North
To correct azimuth from True to GRID subtract 0.45 deg
To correct azimuth from Magnetic to GRID add 7.91 deg

Created by	admin
Date plotted	1-Feb-2017
Plot reference is W PC SOUTH 1S-66-2928-17NH (PWB).	
Ref wellpath is W PC SOUTH 1S-66-2928-17NH (PWP#1).	
Coordinates are in Feet reference PC SOUTH 1S-66-2928-17NH.	
True Vertical Depths are reference Rig Datum.	
Measured Depths are reference Rig Datum.	
Rig Datum: Planned Datum #1	
Rig Datum to Mean Sea Level: 5062.41 ft.	
Plot North is aligned to GRID North.	

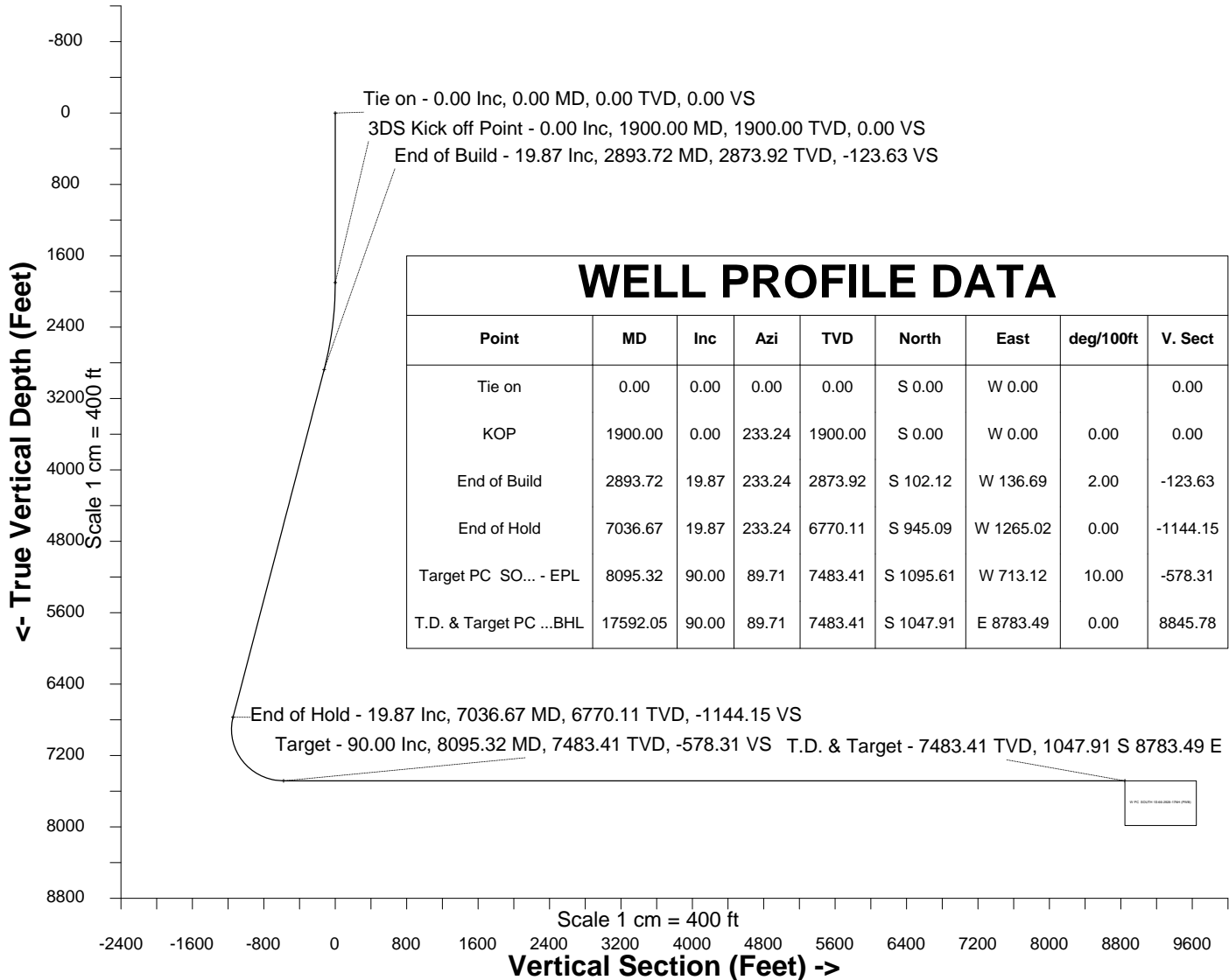
Surface 0.00 N 0.00 E

PC SOUTH 1S-66-2928-17NH - BHL

PC SOUTH 1S-66-2928-17NH - EPL

PC North Block Boundary

1600
0
-1600
-3200
Scale 1 cm = 800 ft
North (Feet)



Azimuth 96.80 with reference 0.00 N, 0.00 E from PC SOUTH 1S-66-2928-17NH



SYSDRILL
Well Design Combined Report
Wellbore: W PC SOUTH 1S-66-2928-17NH (PWB)



Wellhead Details

Name	Latitude	Longitude	Northing	Easting	North	East	Slot Elevation Above Ground
PC SOUTH 1S-66-2928-17NH	N39 56 6.5760	W104 48 15.1560	1219992.8589	3195111.3957	90.83S	31.56E	0.00

Declination

Date	Source	Time
Jan-24-2017	EMM-2015 [2000.0-2020.0]	09:32

Installation Details

Name	Installation Position (Latitude)	Installation Position (Longitude)	Northing	Easting	Coord System Name	North Alignment
PC 1S-66-2928 PAD	N39 56 7.4760	W104 48 15.5520	1220083.6821	3195079.8360	CO83-NF on NORTH AMERICAN DATUM 1983 datum	Grid

Summary Wellpath

MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Northing	Easting
0.00	0.00	0.000	0.00	0.00N	0.00E		0.00	1219992.86	3195111.40
1900.00	0.00	233.240	1900.00	0.00N	0.00E	==>	0.00	1219992.86	3195111.40
2893.72	19.87	233.240	2873.92	102.12S	136.69W	2.00	-123.63	1219890.74	3194974.71
7036.67	19.87	233.240	6770.11	945.09S	1265.02W	==>	-1144.15	1219047.80	3193846.42
8095.32	90.00	89.710	7483.41	1095.61S	713.12W	10.00	-578.31	1218897.29	3194398.30
17592.05	90.00	89.710	7483.41	1047.91S	8783.49E	==>	8845.78	1218944.98	3203894.62

Interpolated Wellpath

MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	All Station Comments
0.00	0.00	0.000	0.00	0.00N	0.00E		0.00	Slot Datum
100.00	0.00	0.000	100.00	0.00N	0.00E	==>	0.00	
200.00	0.00	0.000	200.00	0.00N	0.00E	==>	0.00	
300.00	0.00	0.000	300.00	0.00N	0.00E	==>	0.00	
400.00	0.00	0.000	400.00	0.00N	0.00E	==>	0.00	
500.00	0.00	0.000	500.00	0.00N	0.00E	==>	0.00	
600.00	0.00	0.000	600.00	0.00N	0.00E	==>	0.00	
700.00	0.00	0.000	700.00	0.00N	0.00E	==>	0.00	
800.00	0.00	0.000	800.00	0.00N	0.00E	==>	0.00	
900.00	0.00	0.000	900.00	0.00N	0.00E	==>	0.00	
1000.00	0.00	0.000	1000.00	0.00N	0.00E	==>	0.00	
1100.00	0.00	0.000	1100.00	0.00N	0.00E	==>	0.00	
1200.00	0.00	0.000	1200.00	0.00N	0.00E	==>	0.00	
1300.00	0.00	0.000	1300.00	0.00N	0.00E	==>	0.00	
1400.00	0.00	0.000	1400.00	0.00N	0.00E	==>	0.00	
1500.00	0.00	0.000	1500.00	0.00N	0.00E	==>	0.00	
1600.00	0.00	0.000	1600.00	0.00N	0.00E	==>	0.00	
1700.00	0.00	0.000	1700.00	0.00N	0.00E	==>	0.00	
1800.00	0.00	0.000	1800.00	0.00N	0.00E	==>	0.00	
1900.00	0.00	233.240	1900.00	0.00N	0.00E	==>	0.00	
2000.00	2.00	233.240	1999.98	1.04S	1.40W	2.00	-1.26	
2100.00	4.00	233.240	2099.84	4.18S	5.59W	2.00	-5.06	
2200.00	6.00	233.240	2199.45	9.39S	12.57W	2.00	-11.37	
2300.00	8.00	233.240	2298.70	16.69S	22.34W	2.00	-20.20	
2400.00	10.00	233.240	2397.47	26.05S	34.87W	2.00	-31.54	
2500.00	12.00	233.240	2495.62	37.47S	50.15W	2.00	-45.36	
2600.00	14.00	233.240	2593.06	50.93S	68.17W	2.00	-61.66	
2700.00	16.00	233.240	2689.64	66.42S	88.91W	2.00	-80.41	
2800.00	18.00	233.240	2785.27	83.92S	112.33W	2.00	-101.59	
2900.00	19.87	233.240	2879.82	103.40S	138.40W	==>	-125.18	
3000.00	19.87	233.240	2973.86	123.75S	165.64W	==>	-149.81	
3100.00	19.87	233.240	3067.91	144.09S	192.87W	==>	-174.44	

All data is in Feet unless otherwise stated
Coordinates are from Slot MD's are from Rig and TVD's are from Rig (Planned Datum #1 5062.4ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 96.800 degrees
Bottom hole distance is 8845.78 Feet on azimuth 96.80 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by IPT
Date Printed: 1-Feb-2017



SYSDRILL
Well Design Combined Report
Wellbore: W PC SOUTH 1S-66-2928-17NH (PWB)



Interpolated Wellpath								
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	All Station Comments
3200.00	19.87	233.240	3161.95	164.44S	220.11W	==>	-199.08	
3300.00	19.87	233.240	3255.99	184.79S	247.34W	==>	-223.71	
3400.00	19.87	233.240	3350.04	205.13S	274.58W	==>	-248.34	
3500.00	19.87	233.240	3444.08	225.48S	301.81W	==>	-272.97	
3600.00	19.87	233.240	3538.13	245.83S	329.05W	==>	-297.61	
3700.00	19.87	233.240	3632.17	266.18S	356.28W	==>	-322.24	
3800.00	19.87	233.240	3726.21	286.52S	383.52W	==>	-346.87	
3900.00	19.87	233.240	3820.26	306.87S	410.75W	==>	-371.50	
4000.00	19.87	233.240	3914.30	327.22S	437.98W	==>	-396.14	
4100.00	19.87	233.240	4008.35	347.56S	465.22W	==>	-420.77	
4200.00	19.87	233.240	4102.39	367.91S	492.45W	==>	-445.40	
4300.00	19.87	233.240	4196.43	388.26S	519.69W	==>	-470.03	
4400.00	19.87	233.240	4290.48	408.60S	546.92W	==>	-494.67	
4500.00	19.87	233.240	4384.52	428.95S	574.16W	==>	-519.30	
4600.00	19.87	233.240	4478.57	449.30S	601.39W	==>	-543.93	
4700.00	19.87	233.240	4572.61	469.65S	628.63W	==>	-568.57	
4800.00	19.87	233.240	4666.65	489.99S	655.86W	==>	-593.20	
4900.00	19.87	233.240	4760.70	510.34S	683.10W	==>	-617.83	
5000.00	19.87	233.240	4854.74	530.69S	710.33W	==>	-642.46	
5100.00	19.87	233.240	4948.78	551.03S	737.57W	==>	-667.10	
5200.00	19.87	233.240	5042.83	571.38S	764.80W	==>	-691.73	
5300.00	19.87	233.240	5136.87	591.73S	792.04W	==>	-716.36	
5400.00	19.87	233.240	5230.92	612.07S	819.27W	==>	-740.99	
5500.00	19.87	233.240	5324.96	632.42S	846.51W	==>	-765.63	
5600.00	19.87	233.240	5419.00	652.77S	873.74W	==>	-790.26	
5700.00	19.87	233.240	5513.05	673.11S	900.98W	==>	-814.89	
5800.00	19.87	233.240	5607.09	693.46S	928.21W	==>	-839.52	
5900.00	19.87	233.240	5701.14	713.81S	955.45W	==>	-864.16	
6000.00	19.87	233.240	5795.18	734.16S	982.68W	==>	-888.79	
6100.00	19.87	233.240	5889.22	754.50S	1009.92W	==>	-913.42	
6200.00	19.87	233.240	5983.27	774.85S	1037.15W	==>	-938.05	
6300.00	19.87	233.240	6077.31	795.20S	1064.39W	==>	-962.69	
6400.00	19.87	233.240	6171.36	815.54S	1091.62W	==>	-987.32	
6500.00	19.87	233.240	6265.40	835.89S	1118.86W	==>	-1011.95	
6600.00	19.87	233.240	6359.44	856.24S	1146.09W	==>	-1036.59	
6700.00	19.87	233.240	6453.49	876.58S	1173.32W	==>	-1061.22	
6800.00	19.87	233.240	6547.53	896.93S	1200.56W	==>	-1085.85	
6900.00	19.87	233.240	6641.58	917.28S	1227.79W	==>	-1110.48	
7000.00	19.87	233.240	6735.62	937.63S	1255.03W	==>	-1135.12	
7100.00	15.38	218.340	6830.48	958.13S	1278.87W	10.00	-1156.35	
7200.00	12.14	177.490	6927.82	979.09S	1286.65W	10.00	-1161.60	
7300.00	15.97	138.380	7025.02	999.93S	1277.03W	10.00	-1149.58	
7400.00	23.66	119.090	7119.12	1020.02S	1250.29W	10.00	-1120.65	
7500.00	32.58	109.370	7207.28	1038.75S	1207.25W	10.00	-1075.70	
7600.00	41.94	103.550	7286.80	1055.54S	1149.22W	10.00	-1016.08	
7700.00	51.52	99.550	7355.28	1069.90S	1077.95W	10.00	-943.61	
7800.00	61.19	96.500	7410.63	1081.38S	995.61W	10.00	-860.50	
7900.00	70.92	93.970	7451.17	1089.64S	904.71W	10.00	-769.26	
8000.00	80.68	91.730	7475.68	1094.42S	808.01W	10.00	-672.67	
8100.00	90.00	89.710	7483.41	1095.58S	708.44W	==>	-573.66	
8200.00	90.00	89.710	7483.41	1095.08S	608.44W	==>	-474.43	
8300.00	90.00	89.710	7483.41	1094.58S	508.44W	==>	-375.19	
8400.00	90.00	89.710	7483.41	1094.08S	408.45W	==>	-275.96	
8500.00	90.00	89.710	7483.41	1093.57S	308.45W	==>	-176.72	
8600.00	90.00	89.710	7483.41	1093.07S	208.45W	==>	-77.49	
8700.00	90.00	89.710	7483.41	1092.57S	108.45W	==>	21.75	
8800.00	90.00	89.710	7483.41	1092.07S	8.45W	==>	120.98	
8900.00	90.00	89.710	7483.41	1091.56S	91.55E	==>	220.22	
9000.00	90.00	89.710	7483.41	1091.06S	191.55E	==>	319.45	

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Coordinates are from Slot MD's are from Rig and TVD's are from Rig (Planned Datum #1 5062.4ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 96.800 degrees
Bottom hole distance is 8845.78 Feet on azimuth 96.80 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by IPT
Date Printed: 1-Feb-2017



SYSDRILL
Well Design Combined Report
Wellbore: W PC SOUTH 1S-66-2928-17NH (PWB)



Interpolated Wellpath								
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	All Station Comments
9100.00	90.00	89.710	7483.41	1090.56S	291.55E	==>	418.69	
9200.00	90.00	89.710	7483.41	1090.06S	391.54E	==>	517.92	
9300.00	90.00	89.710	7483.41	1089.56S	491.54E	==>	617.16	
9400.00	90.00	89.710	7483.41	1089.05S	591.54E	==>	716.39	
9500.00	90.00	89.710	7483.41	1088.55S	691.54E	==>	815.63	
9600.00	90.00	89.710	7483.41	1088.05S	791.54E	==>	914.86	
9700.00	90.00	89.710	7483.41	1087.55S	891.54E	==>	1014.10	
9800.00	90.00	89.710	7483.41	1087.04S	991.54E	==>	1113.33	
9900.00	90.00	89.710	7483.41	1086.54S	1091.54E	==>	1212.57	
10000.00	90.00	89.710	7483.41	1086.04S	1191.53E	==>	1311.80	
10100.00	90.00	89.710	7483.41	1085.54S	1291.53E	==>	1411.04	
10200.00	90.00	89.710	7483.41	1085.04S	1391.53E	==>	1510.27	
10300.00	90.00	89.710	7483.41	1084.53S	1491.53E	==>	1609.51	
10400.00	90.00	89.710	7483.41	1084.03S	1591.53E	==>	1708.74	
10500.00	90.00	89.710	7483.41	1083.53S	1691.53E	==>	1807.98	
10600.00	90.00	89.710	7483.41	1083.03S	1791.53E	==>	1907.21	
10700.00	90.00	89.710	7483.41	1082.52S	1891.53E	==>	2006.45	
10800.00	90.00	89.710	7483.41	1082.02S	1991.52E	==>	2105.68	
10900.00	90.00	89.710	7483.41	1081.52S	2091.52E	==>	2204.92	
11000.00	90.00	89.710	7483.41	1081.02S	2191.52E	==>	2304.15	
11100.00	90.00	89.710	7483.41	1080.52S	2291.52E	==>	2403.39	
11200.00	90.00	89.710	7483.41	1080.01S	2391.52E	==>	2502.62	
11300.00	90.00	89.710	7483.41	1079.51S	2491.52E	==>	2601.86	
11400.00	90.00	89.710	7483.41	1079.01S	2591.52E	==>	2701.09	
11500.00	90.00	89.710	7483.41	1078.51S	2691.52E	==>	2800.33	
11600.00	90.00	89.710	7483.41	1078.01S	2791.51E	==>	2899.56	
11700.00	90.00	89.710	7483.41	1077.50S	2891.51E	==>	2998.80	
11800.00	90.00	89.710	7483.41	1077.00S	2991.51E	==>	3098.03	
11900.00	90.00	89.710	7483.41	1076.50S	3091.51E	==>	3197.27	
12000.00	90.00	89.710	7483.41	1076.00S	3191.51E	==>	3296.50	
12100.00	90.00	89.710	7483.41	1075.49S	3291.51E	==>	3395.74	
12200.00	90.00	89.710	7483.41	1074.99S	3391.51E	==>	3494.97	
12300.00	90.00	89.710	7483.41	1074.49S	3491.51E	==>	3594.21	
12400.00	90.00	89.710	7483.41	1073.99S	3591.50E	==>	3693.44	
12500.00	90.00	89.710	7483.41	1073.49S	3691.50E	==>	3792.68	
12600.00	90.00	89.710	7483.41	1072.98S	3791.50E	==>	3891.91	
12700.00	90.00	89.710	7483.41	1072.48S	3891.50E	==>	3991.15	
12800.00	90.00	89.710	7483.41	1071.98S	3991.50E	==>	4090.38	
12900.00	90.00	89.710	7483.41	1071.48S	4091.50E	==>	4189.62	
13000.00	90.00	89.710	7483.41	1070.97S	4191.50E	==>	4288.85	
13100.00	90.00	89.710	7483.41	1070.47S	4291.50E	==>	4388.09	
13200.00	90.00	89.710	7483.41	1069.97S	4391.49E	==>	4487.32	
13300.00	90.00	89.710	7483.41	1069.47S	4491.49E	==>	4586.56	
13400.00	90.00	89.710	7483.41	1068.97S	4591.49E	==>	4685.79	
13500.00	90.00	89.710	7483.41	1068.46S	4691.49E	==>	4785.03	
13600.00	90.00	89.710	7483.41	1067.96S	4791.49E	==>	4884.26	
13700.00	90.00	89.710	7483.41	1067.46S	4891.49E	==>	4983.50	
13800.00	90.00	89.710	7483.41	1066.96S	4991.49E	==>	5082.73	
13900.00	90.00	89.710	7483.41	1066.45S	5091.49E	==>	5181.97	
14000.00	90.00	89.710	7483.41	1065.95S	5191.48E	==>	5281.20	
14100.00	90.00	89.710	7483.41	1065.45S	5291.48E	==>	5380.44	
14200.00	90.00	89.710	7483.41	1064.95S	5391.48E	==>	5479.68	
14300.00	90.00	89.710	7483.41	1064.45S	5491.48E	==>	5578.91	
14400.00	90.00	89.710	7483.41	1063.94S	5591.48E	==>	5678.15	
14500.00	90.00	89.710	7483.41	1063.44S	5691.48E	==>	5777.38	
14600.00	90.00	89.710	7483.41	1062.94S	5791.48E	==>	5876.62	
14700.00	90.00	89.710	7483.41	1062.44S	5891.48E	==>	5975.85	
14800.00	90.00	89.710	7483.41	1061.93S	5991.47E	==>	6075.09	
14900.00	90.00	89.710	7483.41	1061.43S	6091.47E	==>	6174.32	

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Coordinates are from Slot MD's are from Rig and TVD's are from Rig (Planned Datum #1 5062.4ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 96.800 degrees
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Wellbore: W PC SOUTH 1S-66-2928-17NH (PWB)



Interpolated Wellpath								
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	All Station Comments
15000.00	90.00	89.710	7483.41	1060.93S	6191.47E	==>	6273.56	
15100.00	90.00	89.710	7483.41	1060.43S	6291.47E	==>	6372.79	
15200.00	90.00	89.710	7483.41	1059.93S	6391.47E	==>	6472.03	
15300.00	90.00	89.710	7483.41	1059.42S	6491.47E	==>	6571.26	
15400.00	90.00	89.710	7483.41	1058.92S	6591.47E	==>	6670.50	
15500.00	90.00	89.710	7483.41	1058.42S	6691.47E	==>	6769.73	
15600.00	90.00	89.710	7483.41	1057.92S	6791.46E	==>	6868.97	
15700.00	90.00	89.710	7483.41	1057.41S	6891.46E	==>	6968.20	
15800.00	90.00	89.710	7483.41	1056.91S	6991.46E	==>	7067.44	
15900.00	90.00	89.710	7483.41	1056.41S	7091.46E	==>	7166.67	
16000.00	90.00	89.710	7483.41	1055.91S	7191.46E	==>	7265.91	
16100.00	90.00	89.710	7483.41	1055.41S	7291.46E	==>	7365.14	
16200.00	90.00	89.710	7483.41	1054.90S	7391.46E	==>	7464.38	
16300.00	90.00	89.710	7483.41	1054.40S	7491.46E	==>	7563.61	
16400.00	□ □ □ 89.71	89.710	7483.41	1053.90S	7591.45E	==>	7662.85	
16500.00	90.00	89.710	7483.41	1053.40S	7691.45E	==>	7762.08	
16600.00	90.00	89.710	7483.41	1052.89S	7791.45E	==>	7861.32	
16700.00	90.00	89.710	7483.41	1052.39S	7891.45E	==>	7960.55	
16800.00	90.00	89.710	7483.41	1051.89S	7991.45E	==>	8059.79	
16900.00	90.00	89.710	7483.41	1051.39S	8091.45E	==>	8159.02	
17000.00	90.00	89.710	7483.41	1050.89S	8191.45E	==>	8258.26	
17100.00	90.00	89.710	7483.41	1050.38S	8291.45E	==>	8357.49	
17200.00	90.00	89.710	7483.41	1049.88S	8391.44E	==>	8456.73	
17300.00	90.00	89.710	7483.41	1049.38S	8491.44E	==>	8555.96	
17400.00	90.00	89.710	7483.41	1048.88S	8591.44E	==>	8655.20	
17500.00	90.00	89.710	7483.41	1048.38S	8691.44E	==>	8754.43	
17592.05	90.00	89.710	7483.41	1047.91S	8783.49E	==>	8845.78	

All data is in Feet unless otherwise stated
Coordinates are from Slot MD's are from Rig and TVD's are from Rig (Planned Datum #1 5062.4ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 96.800 degrees
Bottom hole distance is 8845.78 Feet on azimuth 96.80 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by IPT
Date Printed: 1-Feb-2017



Targets

Name	North[ft]	East[ft]	TVD[ft]	Latitude	Longitude	Northing	Easting
PC SOUTH 1S-66-2928-17NH - BHL	1047.91S	8783.49E	7483.41	N39 55 55.5240	W104 46 22.5120	1218944.98	3203894.62
PC SOUTH 1S-66-2928-17NH - EPL	1095.61S	813.12W	7483.41	N39 55 55.8120	W104 48 25.7040	1218897.29	3194298.30

Survey Tool Program

Reference	Survey Name	MD[ft]	TVD[ft]	Survey Tool	Error Model
523344	Planned	1500.00	1500.00	WdW Rate Gyro	Standard
523343	Planned	17592.05	7483.41	ISCWSA MWD	Rev 4 + SAG + FLT

Notes



SYSDRILL
Closest Approach + Clearance Factor Summary Report
Wellbore: W PC SOUTH 1S-66-2928-17NH (PWB)



Ellipse separations are reported ONLY if BOTH wells have uncertainty data
Only Depth and Magnetic Reference Field error terms are correlated across tie points
Scan limit is calculated on CENTRE to CENTRE distance
Summary data uses Closest Approach clearance calculation for all minima
Hole size/Casings ARE included
Hole size/Casings are NOT subtracted from Centre-Centre distance
Confidence limit of 95.00% / 2.80 SD.

Wellbore		
Name	Created	Last Revised
W PC SOUTH 1S-66-2928-17NH (PWB)	Jan-24-2017	Jan-24-2017

Well		
Name	Government ID	Last Revised
W PC SOUTH 1S-66-2928-17NH		Jan-24-2017

Slot						
Name	Latitude	Longitude	Grid Northing	Grid Easting	North	East
PC SOUTH 1S-66-2928-17NH	N39 56 6.5760	W104 48 15.1560	1219992.8589	3195111.3957	90.83S	31.56E

Installation						
Name	Installation Position (Latitude)	Installation Position (Longitude)	Easting	Northing	Coord System Name	North Alignment
PC 1S-66-2928 PAD	N39 56 7.4760	W104 48 15.5520	3195079.8360	1220083.6821	CO83-NF on NORTH AMERICAN DATUM 1983 datum	Grid

Clearance Summary							
Offset WellName	Separation [ft]	MD[ft]	Diverging From[ft]	Ellipse Separation [ft]	Ellipse MD[ft]	Clearance Factor	Clearance MD[ft]
W PC SOUTH 1S-66-2928-18NH	14.57	1849.81	1849.81	-374.88	17592.05	0.49	17592.05
W PC SOUTH 1S-66-2928-16CDH	14.57	1902.89	17591.66	-80.28	17591.66	0.77	17591.66
W PC SOUTH 1S-66-2928-19CDH	29.14	1800.00	17592.05	16.21	17592.05	1.02	17592.05
W PC SOUTH 1S-66-2928-15NH	29.14	1902.89	1900.00	-365.17	17592.05	0.51	17592.05
W PC NORTH 1S-66-2928-7CDH	30.85	1400.00	17592.05	28.59	1400.00	3.15	17592.05
W PC NORTH 1S-66-2928-6NH	34.12	1349.96	17592.05	31.94	1349.96	3.43	17592.05
W PC NORTH 1S-66-2928-8NH	34.12	1449.91	17592.05	31.78	1459.97	2.97	17592.05
W PC NORTH 1S-66-2928-5NH	42.44	1300.08	17592.05	40.34	1300.08	3.95	17592.05
W PC NORTH 1S-66-2928-9NH	42.44	1500.00	17592.05	40.02	1500.00	2.50	17592.05
W PC SOUTH 1S-66-2928-20NH	43.71	1749.66	17592.05	25.93	17592.05	1.04	17592.05
W PC SOUTH 1S-66-2928-14NH	47.36	1902.89	17592.05	9.52	17592.05	1.01	17592.05

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Vertical Section is from 0.00N 0.00E on azimuth 96.800 degrees
Prepared by IPT
Date Printed: 1-Feb-2017



SYS DRILL
Closest Approach + Clearance Factor Summary Report
Wellbore: W PC SOUTH 1S-66-2928-17NH (PWB)



Clearance Summary							
Offset WellName	Separation [ft]	MD[ft]	Diverging From[ft]	Ellipse Separation [ft]	Ellipse MD[ft]	Clearance Factor	Clearance MD[ft]
W PC NORTH 1S-66-2928-10C DH	53.50	1549.79	1549.79	51.06	1574.80	2.35	17592.05
W PC NORTH 1S-66-2928-4CD H	56.52	1250.31	17592.05	54.50	1250.31	4.20	17592.05
W PC SOUTH 1S-66-2928-13C DH	61.93	1902.89	17592.05	57.50	1935.70	1.35	17592.05
W PC NORTH 1S-66-2928-3NH	69.19	1200.34	1200.34	67.25	1200.34	4.42	17592.05
W PC SOUTH 1S-66-2928-12N H	76.50	1902.89	1900.00	72.07	1935.70	1.53	17592.05
W PC NORTH 1S-66-2928-2NH	82.48	1150.47	17592.05	80.63	1150.47	4.82	17592.05
W PC NORTH 1S-66-2928-11N H	91.07	1902.89	17592.05	86.64	1935.70	2.01	17592.05
W POLLARD #1	530.03	13471.71	13471.71	272.97	13484.25	2.06	13500.66

